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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/04,459	05/12/2002	Willi Nyrenegger	792-28494-US	5350

28
754
05/08/2003
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EXAMINER

SOHN, SEUNG C

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 05/08/2003

Please find below and or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/914,459

Applicant(s)

NYFFENEGGER ET AL

Examiner

Seung C. Sohn

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION

- Extensions of time may be available under the provisions of 37 CFR 1.136(a); in no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on March 2, 1999. It is noted, however, that applicant has not filed a certified copy of the **199 08 945.0** application as required by 35 U.S.C. 119(b).

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the foreign application for patent or inventor's certificate on which priority is claimed pursuant to 37 CFR 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month and year of its filing.

Drawings

3. The drawings are objected to because the **block diagrams (10, 16, 24, 26-29)** in **Fig. 1** should be labeled or modified to widely used notations. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

4. **Claims 4-7, 9, 11 and 13-14** are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

6. ***Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Miles (Patent No. US 4,257,759).***

Referring to claim 1, Miles shows in the Fig. a device for monitoring the flames of oil burners, having a sensor (11) and an amplifier circuit (82, i.e., flame responsive circuit means without the sensor) for evaluating the signal detected by the sensor (11), the sensitivity of the amplifier circuit adapting itself automatically to the actual level of the signal detected by the sensor (11), characterized in that a control signal generated by the amplifier circuit is mathematically combined with the signal detected by the sensor (11) in a voltage divider device (86, 87) of the amplifier circuit (Col. 3, lines 50-67) .

Referring to claim 2, Miles discloses that the control signal sets the amplitude of the signal detected by the sensor (11) to the defined amplitude (Col. 3, lines 60-62).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 3-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miles (Patent No. US 4,257,759) in view of Mindermann (Patent No. US 6,168,419).

Referring to claim 3, Miles discloses as above, but is silent that an output variable of the voltage divider device successively passes through a filter device, a rectifier device and an amplifier device. Mindermann shows in Fig. 2A a rectifier device (28) (Col. 41-44). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide a filter device and the rectifier device of

Art Unit: 2878

Mindermann in the device of Miles for the purpose of receiving the desired band of wavelength.

Referring to claim 4, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the voltage divider device embodied as an adjustable resistor and the filter device preferably having two bandpass filters connected in series for the purpose of getting more correct output.

Referring to claim 5, Mindermann shows in Fig. 2A that the rectifier device comprises a resistor (R28) connected in series with a diode (28), a capacitor (37) which is connected in parallel with each of these elements, and a resistor (39).

Referring to claim 6, Miles shows in the Fig. That the amplifier circuit also has a comparator (30), the comparator (30) comparing the output signal of the rectifier device with a reference value and generating therefrom a flame signal which contains information on the presence of a flame of the oil burner (Col. 4, lines 28-50).

Referring to claims 7-8, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide a self-test signal for the purpose of detecting the malfunctioning of the amplifier circuit.

Referring to claim 9, Miles shows in the Fig. that the second voltage divider device (72, 73) reduces the amplification of a first bandpass filter as a function of a clock of the pulses of the self-test signal, the functional checking being permanently superimposed on the actual monitoring of the flames (Col. 3, lines 28-36).

Referring to claim 10, it would have been obvious that the amplification of the first bandpass filter is divided into three or halved, that is to say is not reduced to zero.

Referring to claim 11. Miles discloses that the amplifier device of the amplifier circuit has a proportional amplification characteristic (Col. 3, lines 63-67).

Referring to claim 12, Miles discloses that the amplification characteristic of the amplifier device is changed to a predefined, sensitive state by a signal (Col. 5, lines 2-7).

Referring to claim 13, Miles discloses that the signal for changing the integral amplification factor is activated as a function of setting switching-over operations of the oil burner in multi-setting burner operating mode in order to reliably detect the presence of a flame of the oil burner even during a setting switching-over operation (Col. 5, lines 40-51).

Referring to claim 14, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to integrate the amplifier circuit into a microprocessor, in particular into a microprocessor-controlled controller for the purpose of reducing the size of product.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Innes (Patent No. US 5,191,220) discloses flame monitoring apparatus with a multiple burner installation.

Medina (Patent No. US 5,195,885) discloses self-proving burner igniter with stable pilot flame.

Art Unit: 2878

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seung C. Sohn whose telephone number is (703) 308-4093. The examiner can normally be reached on Monday through Friday from 8:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

SCS
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May 2, 2003


KEVIN PYO
PRIMARY EXAMINER